FIG. 1

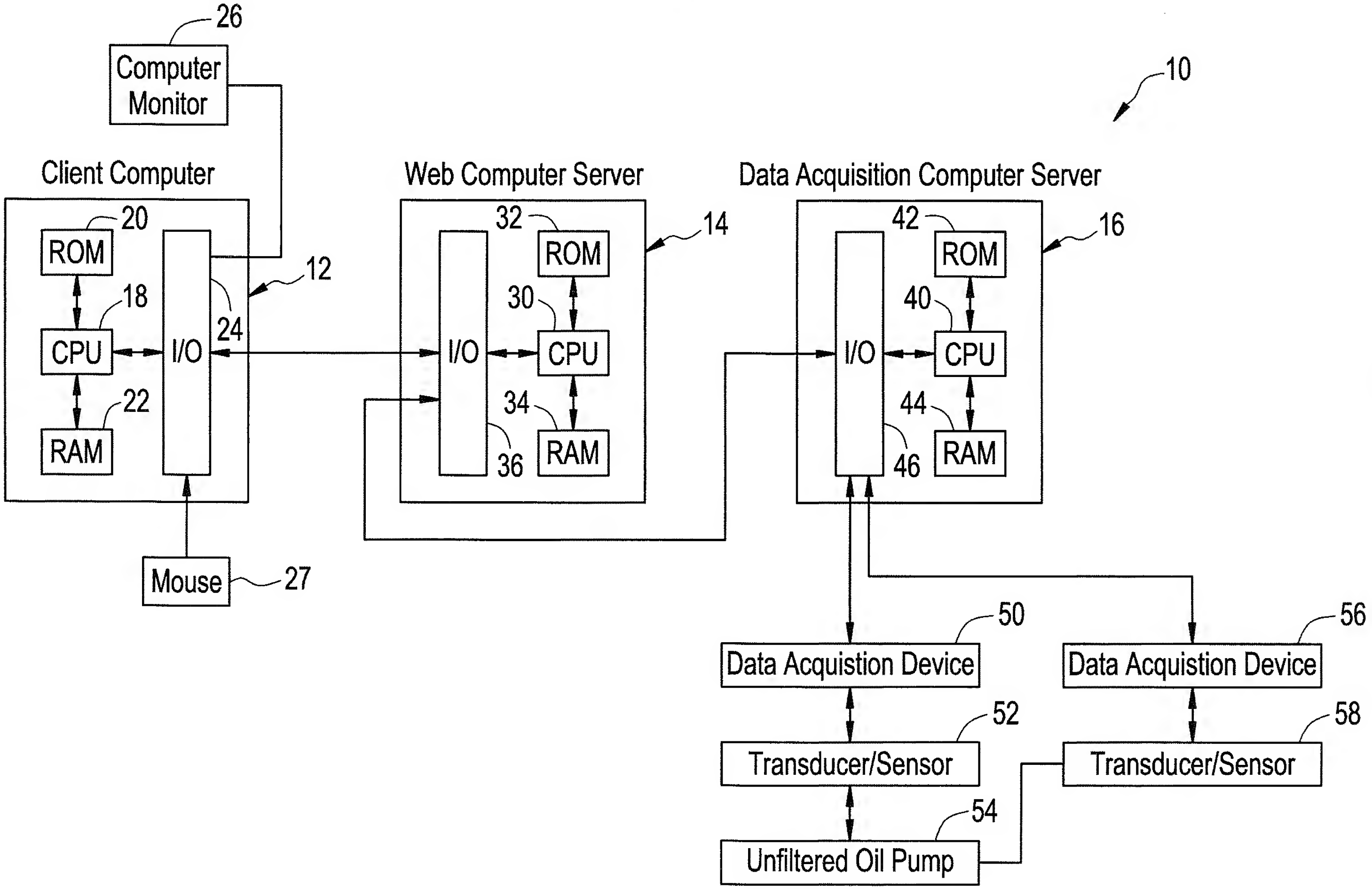

26
Computer Monitor
10
Client Computer
Web Computer Server
Data Acquisition Computer Server
20
ROM
18
CPU
I/O
24
12
22
RAM
32
ROM
14
30
I/O
CPU
34
36
RAM
42
ROM
16
40
I/O
CPU
44
46
RAM
Mouse
27
50
Data Acquistion Device
52
Transducer/Sensor
54
Unfiltered Oil Pump
56
Data Acquistion Device
58
Transducer/Sensor

FIG. 2

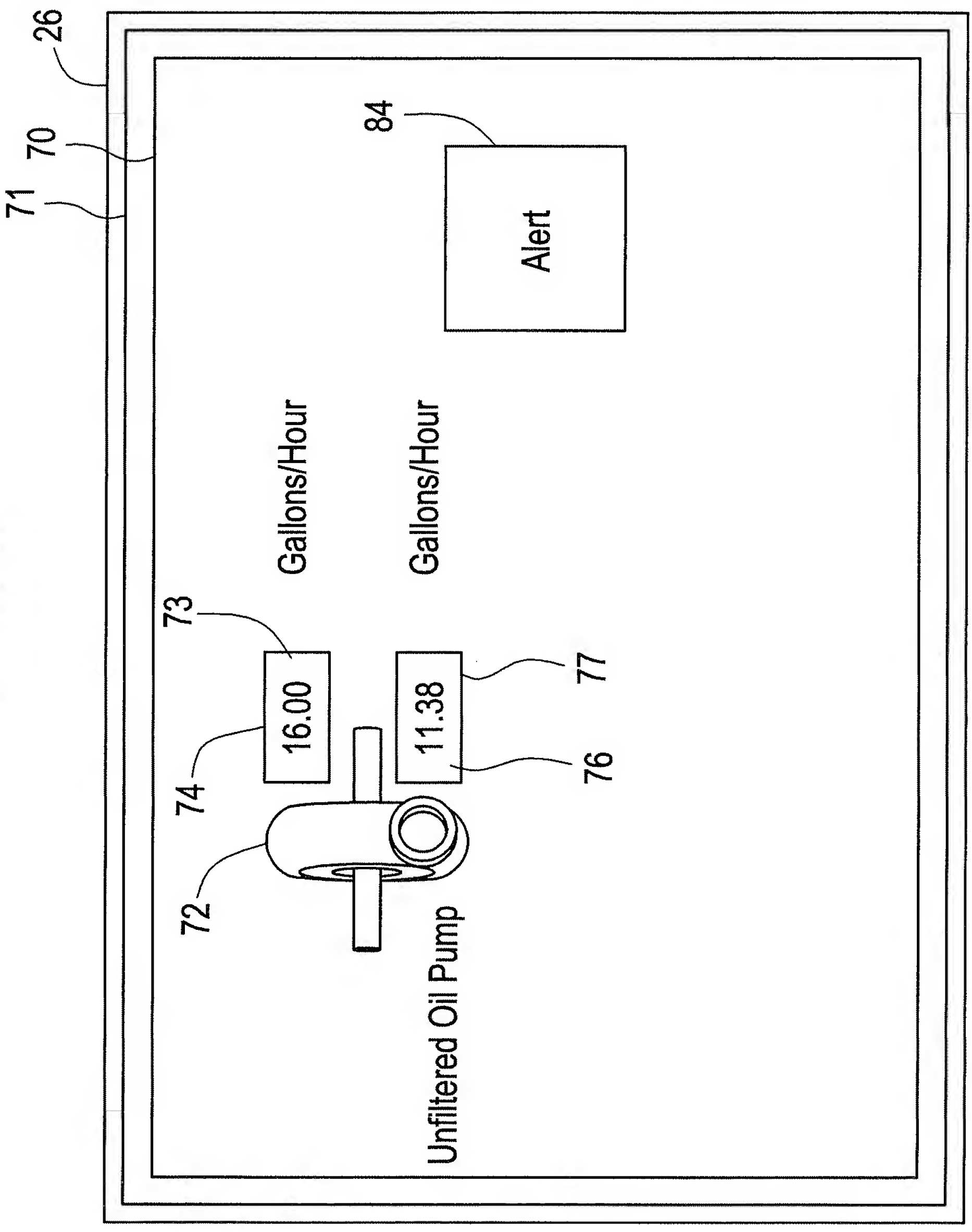

26
70
71
84
Alert
Gallons/Hour
Gallons/Hour
73
16.00
11.38
77
76
74
72
Unfiltered Oil Pump

FIG. 3

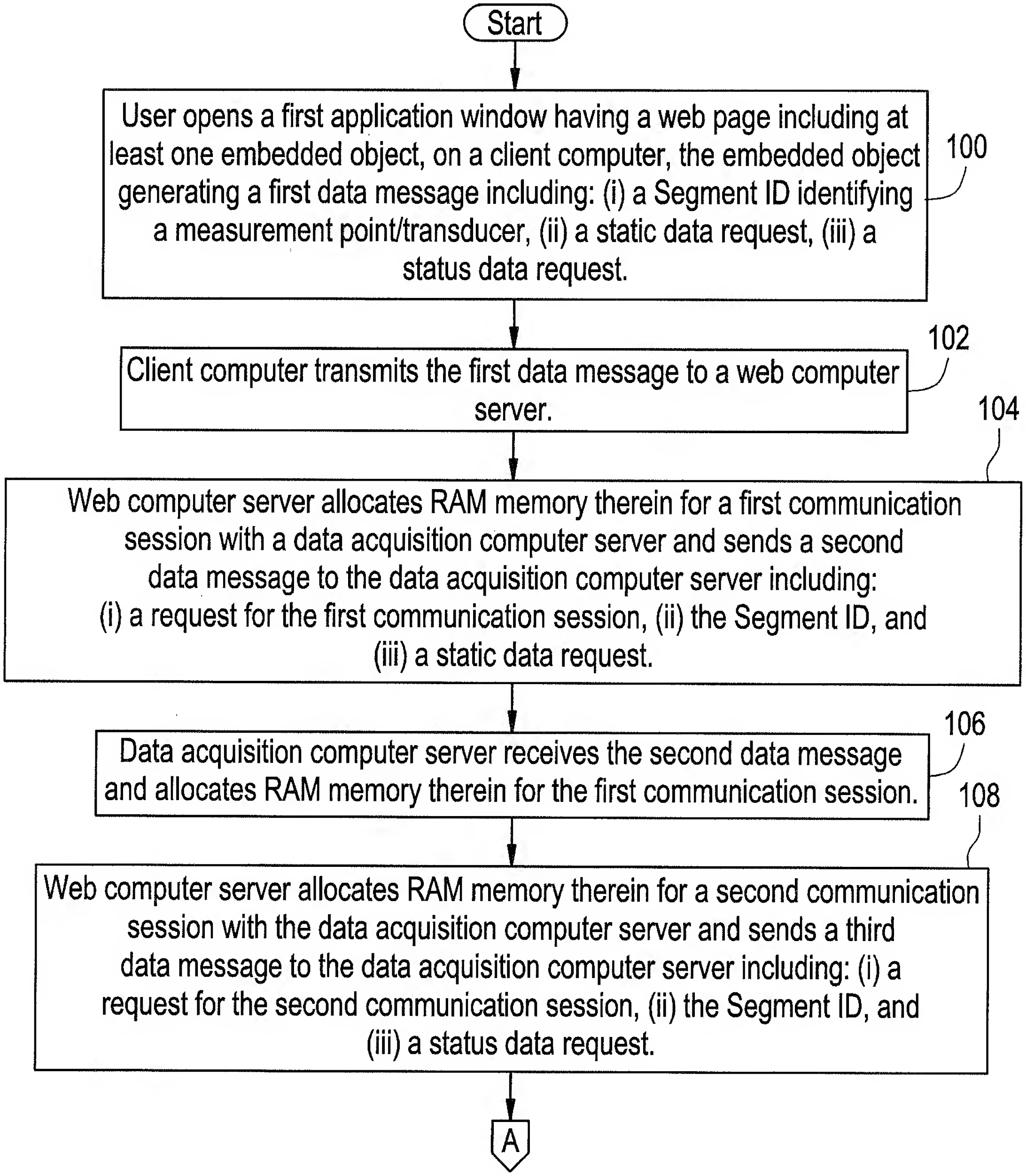

Start
User opens a first application window having a web page including at least one embedded object, on a client computer, the embedded object generating a first data message including: (i) a Segment ID identifying a measurement point/transducer, (ii) a static data request, (iii) a status data request.
100
Client computer transmits the first data message to a web computer server.
102
Web computer server allocates RAM memory therein for a first communication session with a data acquisition computer server and sends a second data message to the data acquisition computer server including: (i) a request for the first communication session, (ii) the Segment ID, and (iii) a static data request.
104
Data acquisition computer server receives the second data message and allocates RAM memory therein for the first communication session.
106
Web computer server allocates RAM memory therein for a second communication session with the data acquisition computer server and sends a third data message to the data acquisition computer server including: (i) a request for the second communication session, (ii) the Segment ID, and (iii) a status data request.
108
A

FIG. 4

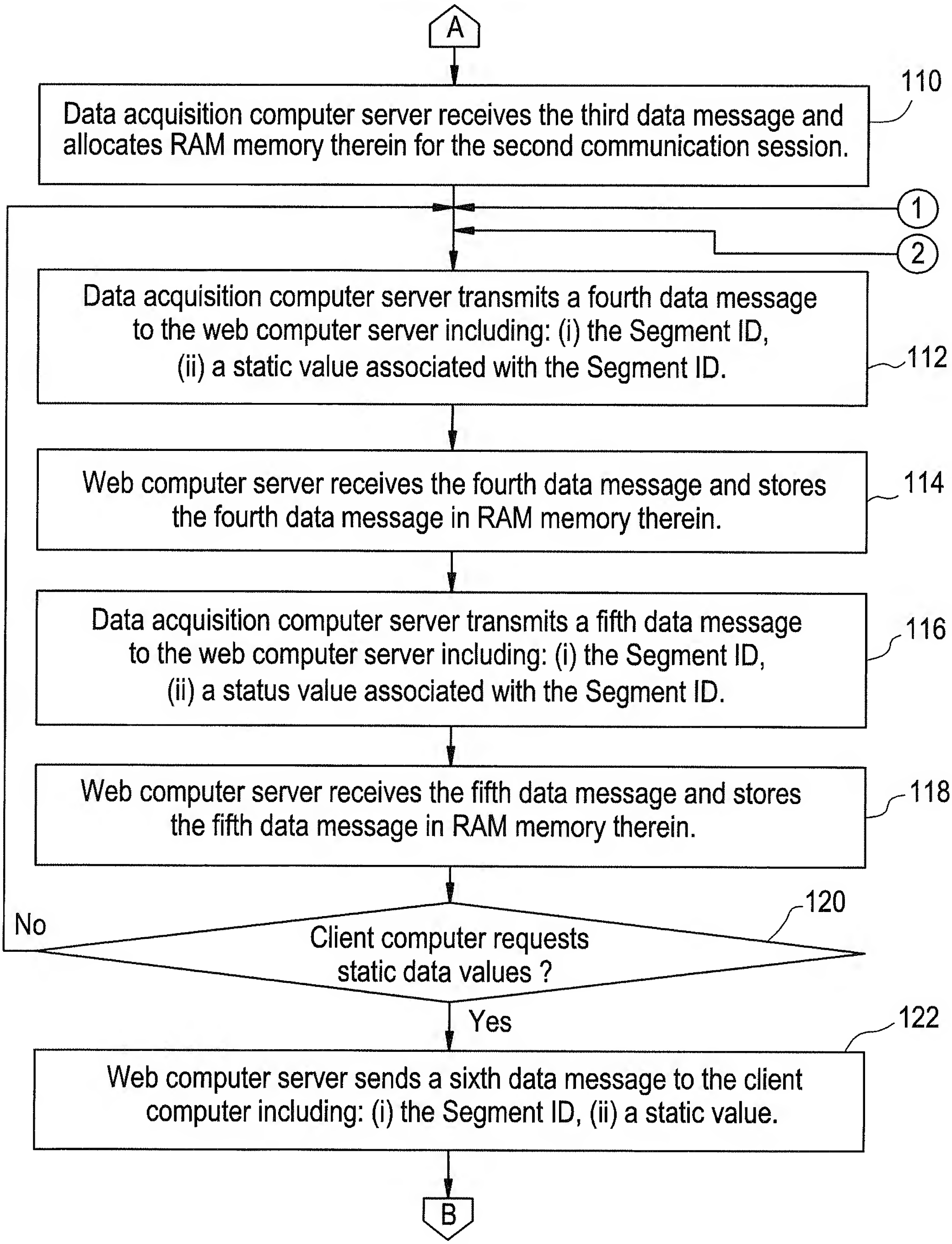

A
Data acquisition computer server receives the third data message and allocates RAM memory therein for the second communication session.
110
1
2
Data acquisition computer server transmits a fourth data message to the web computer server including: (i) the Segment ID, (ii) a static value associated with the Segment ID.
112
Web computer server receives the fourth data message and stores the fourth data message in RAM memory therein.
114
Data acquisition computer server transmits a fifth data message to the web computer server including: (i) the Segment ID, (ii) a status value associated with the Segment ID.
116
Web computer server receives the fifth data message and stores the fifth data message in RAM memory therein.
118
Client computer requests static data values ?
120
No
Yes
Web computer server sends a sixth data message to the client computer including: (i) the Segment ID, (ii) a static value.
122
B

FIG. 5

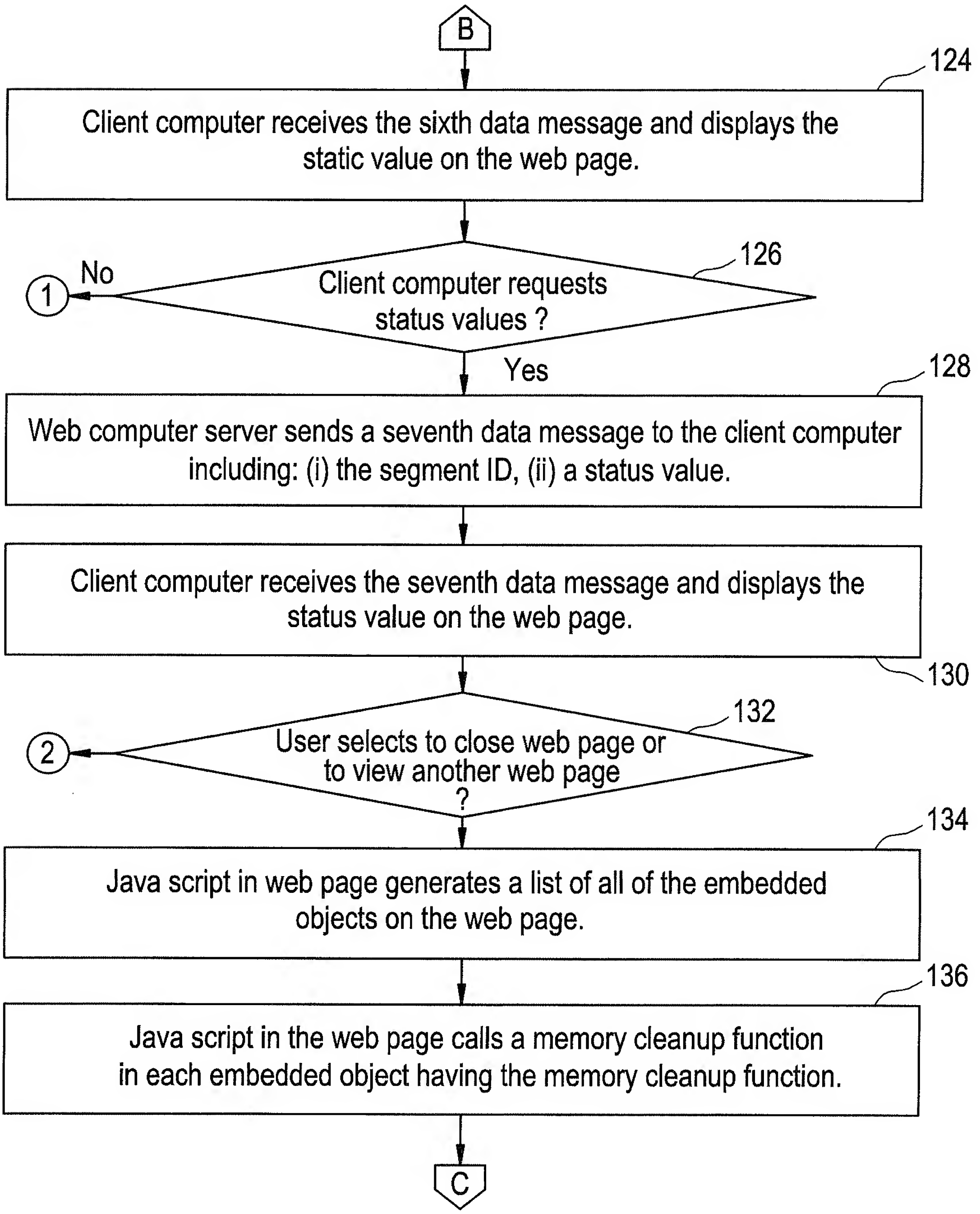

B
124
Client computer receives the sixth data message and displays the static value on the web page.
126
No
1
Client computer requests status values ?
Yes
128
Web computer server sends a seventh data message to the client computer including: (i) the segment ID, (ii) a status value.
Client computer receives the seventh data message and displays the status value on the web page.
130
132
2
User selects to close web page or to view another web page ?
134
Java script in web page generates a list of all of the embedded objects on the web page.
136
Java script in the web page calls a memory cleanup function in each embedded object having the memory cleanup function.
C

FIG. 6

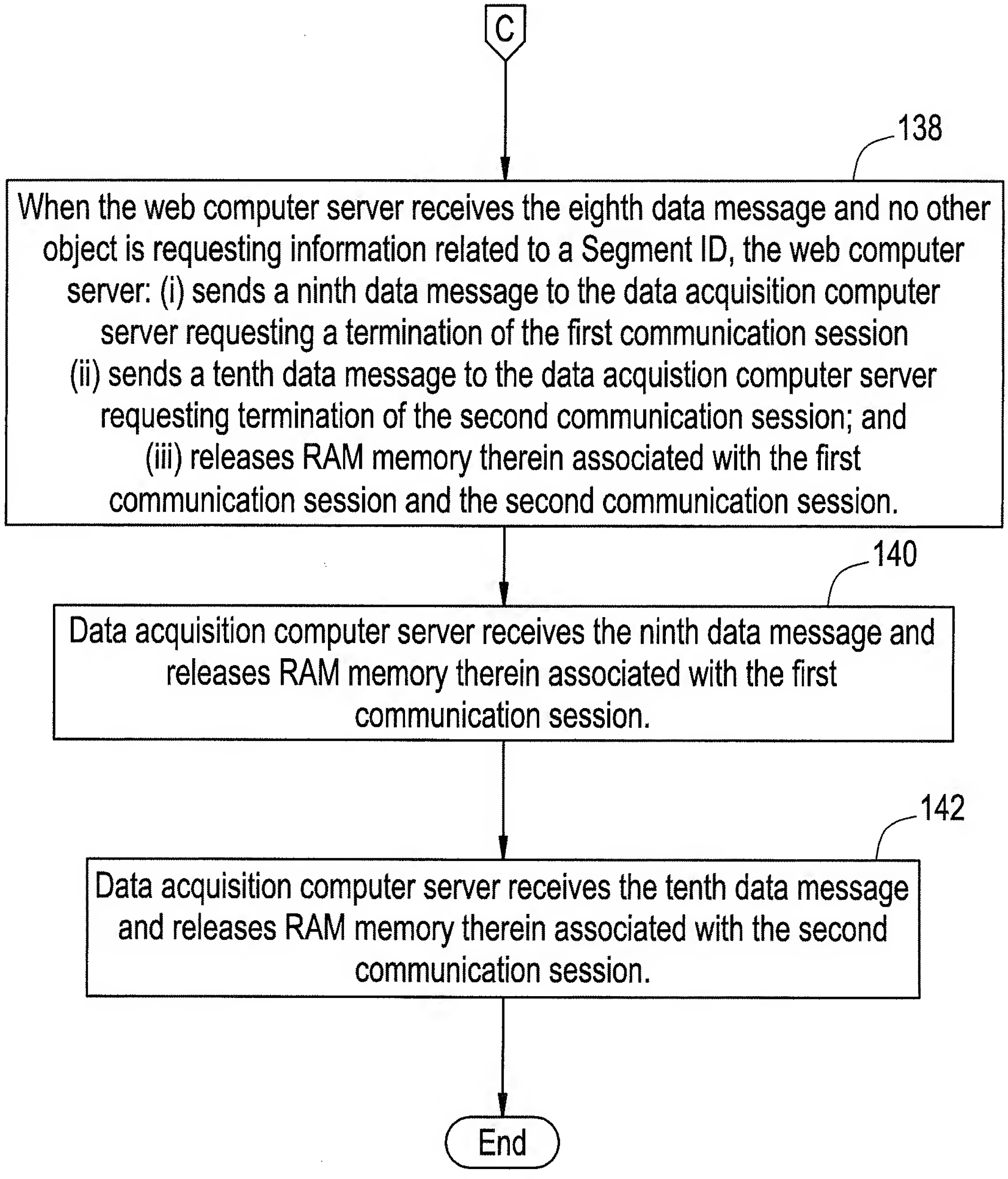
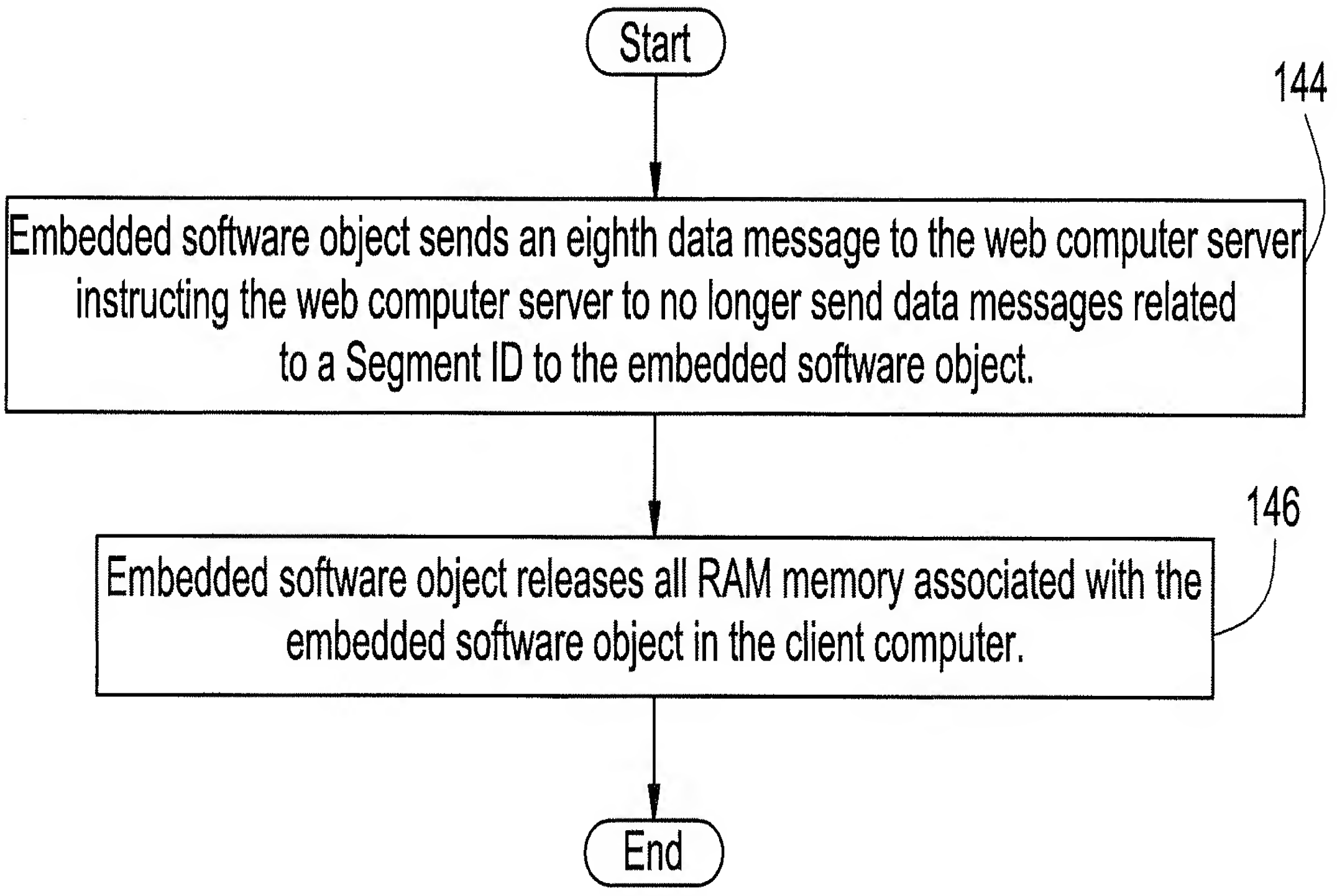

C
138
When the web computer server receives the eighth data message and no other object is requesting information related to a Segment ID, the web computer server: (i) sends a ninth data message to the data acquisition computer server requesting a termination of the first communication session (ii) sends a tenth data message to the data acquistion computer server requesting termination of the second communication session; and (iii) releases RAM memory therein associated with the first communication session and the second communication session.
140
Data acquisition computer server receives the ninth data message and releases RAM memory therein associated with the first communication session.
142
Data acquisition computer server receives the tenth data message and releases RAM memory therein associated with the second communication session.
End

FIG. 7


Start
144
Embedded software object sends an eighth data message to the web computer server instructing the web computer server to no longer send data messages related to a Segment ID to the embedded software object.
146
Embedded software object releases all RAM memory associated with the embedded software object in the client computer.
End